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EXAMINER	
LIN, SHEW FEN	

ART UNIT	PAPER NUMBER
2166	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/721,660	NATESAN ET AL.	
	Examiner	Art Unit	
	SHEW-FEN LIN	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *47,48 and 50-65* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *47-48,50-65* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

a. This action is taken to response to Request for Continued Examination filed on 10/6/2008.

b. Claims 47-48 and 50-65 are pending. Claims 47, 56, and 64 are amended. Claims 47, 56, and 64 are independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 47-48, 50-61 and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livshutz et al. (European Patent Application, EP 0943894A2, 9/22/1999, hereinafter Livshutz) in view of Machii et al. (US Patent 6,324,467, hereinafter Machii).

As to claim 47, Livshutz discloses a method of operation for a server in a navigation system (Fig. 1) comprising:

on a server (paragraph 0112, client -server platform environments. The navigation application program and the geographic database need not be located in the same location, but may be connected over a network, i.e. on a server, see also Machii, Fig. 2, col. 3, lines 1-4), using a repository for geographic data, wherein the repository contains a plurality of pre-computed parcels of geographic data, wherein the geographic data in each of the parcels represent geographic features contained in a separate one of a plurality of geographic sub-areas into which a geographic region is divided (Figs. 5, 7-9, abstract, paragraph 0043, 0044, geographic database includes a plurality of data records that represent geographic features, the plurality of records are organized into a plurality of parcels);

receiving a request for a route from an origin to a destination (paragraph 0020, a request for a route to a desired destination, see also Machii, Fig. 2, 218);

calculating a route from said origin to said destination (Fig. 5, 136, paragraph 0012, 0023, 0032, route calculation, calculating a route between two locations, see also Machii, Fig. 2, 209);

transmitting data that represents the calculated route to an end user computing platform (paragraph 0112, The geographic database may be located remotely from the end-user and the

data transmitted to the end-user over a wireless communications link, see also Machii, Fig. 2, 211); and

transmitting all of the data contained in the parcels that represent the geographic features encompassed in the geographic sub-areas said route passes through to the end user computing platform (paragraph 0009, 0031-0033, 0045, 0112, the navigation application program is being run, load data into memory based upon the physical geographic locations of the features which the data represent or upon the geographical proximity of the features which the data represent and data are organized into parcels, the data transmitted to the end-user over a wireless communications link, When a parcel of data is accessed, all of its data records 322, 323, are read from the medium into the memory of the navigation system at the same time. see also Machii, Fig. 2, 204, 211, Fig. 9, 905).

Livshutz does not mention explicitly after said step of calculating the route, using the calculated route to identify the geographic sub-areas that are crossed by the calculated route identifying the parcels that contain the data that represent the geographic features encompassed in the geographic sub-areas that the route passes through. In stead, Livshutz discloses after an end-user obtains a calculated route, the routing subset of geographic data is accessed first to obtain the routing road segment data entities for the optimum route, and then the cartographic subset of the geographic database is accessed to obtain the cartographic road segment data entities corresponding to the routing data entities (paragraph 0012) and a navigation system may require to access the geographic data spatially by finding several or all of a type of data records located close to a location in the geographic region or within a defined area in the geographic region (paragraph 0038). However, it is common and will be recognized by a person with

ordinary skill in the art that in order to provide maneuver data for route guidance, the sub-area and parcels associated the route segments will be identified (Figs. 7-9, 13-15).

Moreover, Machii explicitly teaches in the invention "after said step of calculating the route, using the calculated route to identify the geographic sub-areas that are crossed by the calculated route identifying the parcels that contain the data that represent the geographic features encompassed in the geographic sub-areas that the route passes through" as (abstract, Figs. 3, 11, 14, col. 17, line 56 to col. 18, line 43, After calculation of a route has been finished, the server 1302 selects roads and information which is to be transmitted to the terminal 1306 from map meshes 1404 to 1410).

Therefore it would have been obvious for persons of ordinary skills in the art at the time of the applicant's invention to identify map meshes intersect with route and then identify the street, building within the intersecting meshes, as explicitly demonstrated by Machii and implicitly demonstrated by Livshutz.

As to claim 48, Livshutz discloses the method of claim 47, wherein said parcels of geographic data are less than a maximum data size (paragraph 0043).

As to claim 50, Livshutz discloses the method of claim 47, further comprising: storing said transmitted parcels in a memory associated with the mobile unit (Figs. 1, 8, paragraph 0045, lines 6-8, see also Machii, col. 5, lines 28-38, The data received from the server 1302 is stored in the memory 101).

As to claim 51, Livshutz discloses the method of claim 47, further comprising: using data from said provided parcels to display a map (Fig. 5, 137, paragraph 0035, using these different layers of cartographic data, the map display function can provide rapid panning and zooming.)

As to claim 52, Livshutz discloses the method of claim 47, further comprising: using data from said provided parcels to explicate said route (paragraph 0023, lines 13-15, route guidance, wherein detailed directions are provided for reaching a desired destination).

As to claim 53, Livshutz discloses the method of claim 47, further comprising: using data from said provided parcels to find information about a point of interest based upon specified criteria (Fig. 5, 139, paragraph 0026, point-of -interest, such as a hotel or civic center, a boundary of a natural feature, such as a lake, or a position along a railroad track or ferry.).

As to claim 54, Livshutz discloses the method of claim 53, wherein the specified criteria include location-based criteria (paragraph 0026, The location 114 may correspond to a position of a point-of -interest, such as a hotel or civic center, a boundary of a natural feature, such as a lake, or a position along a railroad track or ferry. The locations 114 may correspond to anything physically located in the geographic area 112).

As to claim 55, Livshutz discloses the method of claim 47, wherein the repository includes a plurality of collections of geographic data, wherein each collection represents the entire geographic region, wherein each collection is organized into a plurality of parcels, each of

said parcel is less than a maximum size and wherein the parcels in one of said plurality of collections contains data that represents different attributes of the represented geographic features than the parcels in another of said plurality of collections (Figs. 9, 11, abstract, paragraph 0014, 0030, 0043).

As to claim 56, Livshutz discloses a navigation system (Fig. 1) comprising:

a server (paragraph 112, see also Machii, Fig. 2, col. 3, lines 1-4, Fig. 13, 1302);

a repository for geographic data (Fig. 1, 32), wherein the repository contains pre-computed parcels of geographic data (Fig. 8), wherein each of the pre-computed parcels of geographic data corresponds to a separate one of a plurality of geographic sub-areas into which a geographic region is divided (Figs. 5, 7-9, abstract, paragraph 0043,0044, geographic database includes a plurality of data records that represent geographic features, the plurality of records are organized into a plurality of parcels);

a route calculation application performed on the server that calculates a route from an origin to a destination (Fig. 5, 136, Fig. 6, paragraph 0012, 0023, 0112, route calculation); and

a geographic data providing application performed on the server (paragraph 0112, The navigation application program and the geographic database need not be located in the same location, but may be connected over a network. The geographic database may be located remotely from the end-user and the data transmitted to the end-user over a wireless communications link, see also Machii, Figs. 2, 13);

transmitting to a client computing platform from the server data that represents the calculated route (paragraph 0112, the data transmitted to the end-user over a wireless communications link, see also Machii, Figs. 2, 13); and

transmitting to the client computing platform from said repository all of the data contained in the parcels that contain the data that represent the geographic features encompassed in said geographic sub-areas said route passes through (paragraph 0009, 0031-0033, 0045, 0112, the navigation application program is being run, load data into memory based upon the physical geographic locations of the features which the data represent or upon the geographical proximity of the features which the data represent and data are organized into parcels, the data transmitted to the end-user over a wireless communications link, When a parcel of data is accessed, all of its data records 322, 323, are read from the medium into the memory of the navigation system at the same time, see also Machii, Fig. 2, 204, 211, Fig. 9, 905).

Livshutz does not mention explicitly application performed on the server that uses the calculate route to identify the geographic sub-areas that are crossed by the calculated route. In stead, Livshutz discloses after an end-user obtains a calculated route, the routing subset of geographic data is accessed first to obtain the routing road segment data entities for the optimum route, and then the cartographic subset of the geographic database is accessed to obtain the cartographic road segment data entities corresponding to the routing data entities (paragraph 0012) and a navigation system may require to access the geographic data spatially by finding several or all of a type of data records located close to a location in the geographic region or within a defined area in the geographic region (paragraph 0038). However, it is common and will be recognized by a person with ordinary skill in the art that in order to provide maneuver

data for route guidance, the sub-area and parcels associated the route segments will be identified (Figs. 7-9, 13-15).

Moreover, Machii explicitly teaches in the invention "application performed on the server that uses the calculate route to identify the geographic sub-areas that are crossed by the calculated route" as (abstract, Figs. 3, 11, 14, col. 17, line 56 to col. 18, line 43, After calculation of a route has been finished, the server 1302 selects roads and information which is to be transmitted to the terminal 1306 from map meshes 1404 to 1410).

Therefore it would have been obvious for persons of ordinary skills in the art at the time of the applicant's invention to identify map meshes intersect with route and then identify the street, building within the intersecting meshes, as explicitly demonstrated by Machii and implicitly demonstrated by Livshutz.

As to claim 57, Livshutz discloses the method of claim 56, wherein said pre-computed parcels of geographic data have a substantially uniform data size (paragraph 0081, maintain a uniform parcel size among the parcels within the layer).

As to claim 58, Livshutz discloses the method of claim 56, wherein said repository for geographic data and said geographic data providing application are associated with a server (paragraph 0112, client-server platform).

As to claim 59, Livshutz discloses the method of claim 56,.further comprising: a route guidance application that uses data contained in said parcels from a local memory associated

with said client computing platform to provide maneuvering instructions for following said route (Fig. 5, 138, paragraph 0023, lines 13-15, route guidance, wherein detailed directions are provided for reaching a desired destination).

As to claim 60, Livshutz discloses the method of claim 56, further comprising: a map display application that uses data contained in said parcels from a local memory associated with said client computing platform to provide a map of said route on a display (paragraph 0002, show detailed maps on computer displays outlining routes to destinations, the types of maneuvers to be taken at various locations along the routes, locations of certain types of features, Fig. 5, 137, paragraph 0035, using these different layers of cartographic data, the map display function can provide rapid panning and zooming, paragraph 0112).

As to claim 61, Livshutz discloses the method of claim 56, further comprising: a positioning application that uses data contained in said parcels from a local memory associated with said client computing platform to determine a position of a end user computing platform relative to roads represented by data contained in said parcels (Fig. 1, 24, paragraph 0028, 0112, provide geographic positions).

As to claim 64, has the same subject matter as of claim 47 and as such rejected under the same rationale.

As to claim 65, Livshutz discloses the method of claim 64, further including: storing said parcel in a local memory associated with said mobile computing platform; and using data

from said parcels in said local memory to provide navigation- related features (paragraph 0023). Furthermore, Livshutz disclose wirelessly transmitting data (paragraph 0112, the data transmitted to the end-user over a wireless communications link). Machii also discloses wirelessly transmitting data (Fig. 13, col. 5, lines 10-25).

Claims 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livshutz and Machii, and further in view of Drury et al. (US Patent 6,707,421, hereinafter Drury).

As to claims 62-63, Livshutz discloses navigation application provide these various navigation features and functions including route guidance and destination resolution capabilities (paragraph 0023, Livshutz) but does not explicitly disclose determining whether an end user computing platform has departed from said route and wherein if said end user computing platform has departed from said route, said positioning application calculates a way back to said route.

Drury discloses determining whether an end user computing platform has departed from said route (Fig. 17, column 20, lines 39-58, if at any time the difference between the dead reckoning position and the (D)GPS based position is more than the off-route tolerance, then a off-route routine is initiated) and wherein if said end user computing platform has departed from said route, said positioning application calculates a way back to said route (column 9, lines 15-36, detect when the vehicle has diverged too far from the planned route. When it detects that the

vehicle is off-route, it plans a corrected route based on the main roads map shown in FIG. 10 which get the vehicle back onto the originally planned route).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify Livshutz and Machii's disclosure to include determining if an end user computing platform has departed from the planned route and planning a corrected route to get back onto the originally planned route as taught by Drury for the purpose of providing the operator with instructions to continue to guide the vehicle to the destination despite the error (column 5, lines 13-17, Drury). The skilled artisan would have been motivated to improve the invention of Livshutz and Machii per the above such that navigation system will guide the operator to the destination even if the operator could be off-route due to error or stop by point of interest.

Response to Amendment and Remarks

Applicant's arguments based on newly amended features with respect to claims 47, 56, 64 have been fully and carefully considered but are moot in view of the new ground(s) of rejection. Refer to the corresponding sections of the claim analysis for details.

Regarding to Applicant's argument that Machii teaches away from the claimed invention by extracting and transmitting less than all of the map data of the sub-areas. The Examiner disagrees with this assessment.

Machii clearly teaches "transmitting all of the data contained in the parcel" as claimed (see, Fig. 9, 905, The route information and a vector data map read out from the map data base 405 are supplied to the communication driver 401 which passes them on to the terminal 1306.

col. 14, lines 3-7, If the terminal information indicates that the memory of the terminal 1306 is sufficient, the flow of the processing goes on to a step 905 at which vector map data read out from the map data base 405 is transmitted as it is.) Further, MPEP 2141.02 [R-3] VI states that "PRIOR ART MUST BE CONSIDERED IN ITS ENTIRETY, INCLUDING DISCLOSURES THAT TEACH AWAY FROM THE CLAIMs." Therefore, just for the sake of argument, even if a particular embodiment does "teach away" from the claims, it still qualifies as prior art teaching and must be considered

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shew-Fen Lin whose telephone number is 571-272-2672. The examiner can normally be reached on 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shew-Fen Lin /S. L./
Examiner, Art Unit 2166
July 1, 2009

/Hosain T Alam/
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